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HOSSAIN, FARZANA E

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on 03/06/2009. Claims 1-3, 6, 7, 10, 11, 13-18, 21, 22 and 24-32 have been previously presented. Claims 4, 5, 8, 9, 12, 19, 20 and 23 are cancelled.

Response to Arguments

2. Applicant's arguments filed 03/06/2009 have been fully considered but they are not persuasive.

Regarding Claims 1, 16 and 32, the applicant argues that Bhatt, Trovato and Chaney do not teach or suggest suspension of temporal sorting and storage of data when an application access data stored in the physical memory (Pages 9-10). The applicant argues Bhatt and Trovato do not teach initiating a temporal sorting process of EPG data and suspension of temporal sorting process when an EPG application access data stored in physical memory (Page 10). The applicant further argues that Chaney does not disclose a set top box having a processor "directing a process to temporally sort EPG data into master guide data in the physical memory...and special guide data in the distant future" and "to cause the processor to suspend operation of at least one process when the EPG application accesses the program guide data" (Page 10). The

applicant argues Chaney describes the pre-sorting of program guide information before transmittal of relevant data at the transmitter and fails to teach or suggest any temporal sorting at set top box (Page 10).

In response to the arguments, Bhatt discloses that the processor is configured to initiate at least one process to direct that the program guide data is sorted (Page 3, paragraphs 0031-0032, Figure 4) between preferred data or data most likely to be immediately accessed for an application and remaining data or data that is most likely to be accessed in the more distant future, the preferred data or data likely to be immediately accessed being stored in the DRAM or physical memory and the remaining data or data most likely to be accessed in the more distant future is stored in the HD (Pages 2-3, paragraphs 0022, 0029-0031). Trovato discloses temporal sorting or the processor directs data to be compared by a current time to a time associated with the data for preferred programming and not preferred programming or based upon the current time the most preferred programming data is updated (Column 5, lines 59-67, Column 6, lines 1-7, Column 8, lines 10-21). Chaney discloses an EPG application or the process performed by the processor that is configured to cause the processor to suspend operation of at least one process when the EPG application accesses the program guide data stored in the physical memory or when no other services are processed such as master guide data displayed special guide data is processed (Column 7, lines 28-39). Chaney is not used to disclose the temporal sorting as argued by the applicant. The examiner disagrees with the applicant that absolutely no sorting is completed at the receiver of Chaney as the processor must determine whether the data

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is master guide data or special guide data and store the content (Column 7, lines 2-20, Column 4, lines 18-26, Column 5, lines 10-16, 56-64), nevertheless the examiner would like to note that Trovato is used to teach the temporal sorting.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6-7, 10, 11, 13, 16-18, 21, 22, 25, 26, 31/16-18,21,22,25,26 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt (US 2002/0073426) in view of Trovato et al (US 6,445,306 and hereafter referred to as "Trovato") and Chaney et al (US 5,515,106 and hereafter referred to as "Chaney").

Regarding Claims 1, 16, 31/16, Bhatt discloses a system and method for organizing data for use by an electronic program guide (EPG) application: a set top box or receiver (STB) (Figure 1, 100) including a physical memory or DRAM (Figure 1, 186), a mass storage device or hard drive (HD) (Figure 1, 174), and a processor or central processing control (CPU) (Figure 1, 188) operatively connected to the physical memory and mass storage device for implementing the application (Page 2, paragraph 0026-0027), wherein the physical memory and the mass storage device are configured to store the data (Page 2, paragraph 0021), wherein the processor is configured to control

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storage and manipulation of the program guide data between the physical memory and the mass storage device so that data to be used by the application is available for immediate access from the physical memory (Page 2, paragraphs 0022, 0026-0028, 0030). Bhatt discloses that the process is configured to receive the program guide data received from a communications channel (Page 3, paragraph 0031). Bhatt discloses that the processor is configured to initiate at least one process to direct that the program guide data is sorted (Page 3, paragraphs 0031-0032, Figure 4) between preferred data or data most likely to be immediately accessed for an application and remaining data or data that is most likely to be accessed in the more distant future, the preferred data or data likely to be immediately accessed being stored in the DRAM or physical memory and the remaining data or data most likely to be accessed in the more distant future is stored in the HD (Pages 2-3, paragraphs 0022, 0029-0031). Bhatt discloses updating preferred data via an algorithm so that the most up-to-date preferred programming is stored in the physical memory (Page 2, paragraph 0022, Figure 4, 440). Bhatt discloses temporally sorting data and storing data (Figure 3, 306, 316, Page 3, paragraph 0032) and that the electronic program guide (EPG) application is configured to access the program guide data stored in the physical memory (Page 3, paragraph 0031-0032). Regarding Claim 31, Bhatt discloses the STB or computer readable medium has (Figure 1, 100) has a processor (Figure 1, 188) with programs for executing various data processing and other types of data based (Page 2, paragraphs 0026-0027) and the STB receives and organizes the data (Figure 1, Figure 3, Figure 4). Bhatt discloses the CPU controls the EPG data so that only the preferred data is

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accessed rapidly (Pages 2-3, paragraphs 0030-0032). Bhatt discloses that storage of the data is based on most preferred programming or common usage scenarios when determining what EPG information to display (Pages 2-3, paragraphs 0029-0031) and that the CPU can adjust and control matches for preferred data or most common usage if a match is found between upcoming programming and preferences (Page 3, paragraph 0032), or the CPU can manipulate data if there are usage scenarios. Bhatt discloses that the processes are controlled by the operating system so the CPU can run algorithms the data is transferred to the DRAM so that preferred EPG data is produced without delay or so that these processes do not interfere with running the application of the EPG (Page 2, paragraph 0026, Page 3, paragraph 0031).

Bhatt is silent on the processor comparing a current time to a time associated with the data for preferred programming. Bhatt discloses preferred programming that is most likely to be accessed immediately. Bhatt does not explicitly disclose that the EPG application is configured to cause the processor to suspend operation of the at least one process when the EPG application accesses the program guide data stored in the physical memory.

In analogous art, Trovato discloses that the processor directs data to be compared by a current time to a time associated with the data for preferred programming and not preferred programming or based upon the current time the most preferred programming data is updated (Column 5, lines 59-67, Column 6, lines 1-7, Column 8, lines 10-21).

In analogous art, Chaney discloses the processor receives program guide data from a communications channel (Figure 1, Figure 2), the processor directing a process to temporally sort EPG data into master guide data in the physical memory (Column 7, lines 2-20) and the special guide data in the distant future (Column 4, lines 18-26, Column 5, lines 10-16, 56-64); an EPG application or the process performed by the processor that is configured to cause the processor to suspend operation of at least one process when the EPG application accesses the program guide data stored in the physical memory or when no other services are processed such as master guide data displayed special guide data is processed (Column 7, lines 28-39).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Bhatt to include processor directs data to be compared based on a current time to a time associated with the data for preferred programming and not preferred programming (Column 5, lines 59-67, Column 6, lines 1-7, Column 8, lines 10-21) as taught by Trovato in order to efficiently provide the user with programming for current interests for the user's convenience (Column 1, lines 54-67, Column 2, lines 18-22) as disclosed by Trovato.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include an EPG application or the process performed by the processor that is configured to cause the processor to suspend operation of at least one process when the EPG application accesses the program guide data stored in the physical memory or when no other services are processed such as master guide data displayed special guide data is processed (Column 7, lines 28-39) as taught by Chaney

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in order to minimize amount of memory in the receiver memory (Column 2, lines 25-39, Column 2, lines 18-22) as disclosed by Chaney.

Regarding Claim 32, Bhatt discloses a system and method for efficient storage of including electronic program guide (EPG) data for use by an application: a set top box or receiver (Figure 1, 100) including a physical memory or DRAM (Figure 1, 186), a mass storage device or hard drive (HD) (Figure 1, 174), and a processor or central processing control (CPU) (Figure 1, 188). Bhatt discloses EPG information to be stored on the HD and that there is an algorithm that matches the preferred or immediately displayable data needed in order to add the EPG data from the HD to the DRAM or the CPU controls the data processes including adding data from the mass storage device to the DRAM (Page 2, paragraph 0026, Page 3, paragraph 0031) and updating the data in the HD and DRAM and the data is updated in both HD and then matched with the algorithm for the DRAM for updating the DRAM so the data used by the application for EPG is rapidly accessed, (Pages 2-3, paragraphs 0021, 0029-0031) and that data is removed from HD to DRAM so that desired data has rapid access (Page 2, paragraph 0022) and data is removed from DRAM if it is data that does not need rapid access (Page 2, paragraph 0022), which reads on that the data is removed from the HD and DRAM so as to ensure data used by application can be accessed from the physical memory without delay. It is necessarily included that the processor directs at least two low priority background processes as the processor performs the two processes of adding and removing data (Pages 2-3, paragraphs 0029-0031). Bhatt discloses that the

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data is sorted and stored (Page 3, paragraphs 0031-0032, Figure 4) between preferred data or data most likely to be immediately accessed for an application and remaining data or data that is most likely to be accessed in the more distant future, the preferred data or data likely to be immediately accessed being stored in the DRAM or physical memory and the remaining data or data most likely to be accessed in the more distant future is stored in the HD (Pages 2-3, paragraphs 0022, 0029-0031). Bhatt discloses updating preferred data via an algorithm so that the most up-to-date preferred programming is stored in the physical memory (Page 2, paragraph 0022, Figure 4, 440). Bhatt discloses that the processes are controlled by the operating system so the CPU can run algorithms the data is transferred to the DRAM so that preferred EPG data is produced without delay or so that these processes do not interfere with running the application of the EPG (Page 2, paragraph 0026, Page 3, paragraph 0031). Bhatt is silent on the processor directing the data to be compared based on a current time to a time associated with the data for preferred programming. Bhatt does not explicitly disclose suspending operation of the two low priority processes when the application accesses the program guide data stored in the physical memory. In analogous art, Trovato discloses that the processor directs data to be compared by a current time to a time associated with the data for preferred programming and not preferred programming or based upon the current time the most preferred programming data is updated (Column 5, lines 59-67, Column 6, lines 1-7, Column 8, lines 10-21). In analogous art, Chaney discloses the processor receives program guide data from a communications channel (Figure 1, Figure 2), the processor directing a process to temporally sort EPG

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data into master guide data in the physical memory (Column 7, lines 2-20) and the special guide data in the distant future (Column 4, lines 18-26, Column 5, lines 10-16, 56-64); an EPG application or the process performed by the processor that is configured to cause the processor to suspend operation of two processes of access of sorting data of the master guide data to the buffer memory and processing special guide data when the EPG application accesses the program guide data stored in the physical memory or when no other services are processed such as the master guide data is being currently displayed, then special guide data is processed (Column 7, lines 28-39).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Bhatt to include processor directs data to be compared based on a current time to a time associated with the data for preferred programming and not preferred programming (Column 5, lines 59-67, Column 6, lines 1-7, Column 8, lines 10-21) as taught by Trovato in order to efficiently provide the user with programming for current interests for the user's convenience (Column 1, lines 54-67, Column 2, lines 18-22) as disclosed by Trovato. Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include the process performed by the processor that is configured to cause the processor to suspend operation of two processes of access of sorting data of the master guide data to the buffer memory and processing special guide data when the EPG application accesses the program guide data stored in the physical memory or when no other services are processed such as the master guide data is being currently displayed, then special guide data is processed (Column 7, lines 28-39)

as taught by Chaney in order to minimize amount of memory in the receiver memory (Column 2, lines 25-39, Column 2, lines 18-22) as disclosed by Chaney.

Regarding Claims 2, 17, 31/17, Bhatt, Trovato and Chaney disclose all the limitations of Claims 1, 16, 31/16. Bhatt discloses that the CPU or processor is configured to direct the at least one process to add data from the HDD to the physical memory to maintain a sufficient amount data needed for the EPG application (Page 2, paragraphs 0022, 0029-0031, Figure 4).

Regarding Claims 3, 18, 31/18, Bhatt, Trovato and Chaney disclose all the limitations of Claims 2, 17, 31/17. Bhatt discloses the CPU or processor in a set top box (Figure 1, 188) comprises an algorithm that matches the preferred or displayable data needed in order to add the EPG data from the HD to the DRAM or the CPU controls the data processes including adding data from the mass storage device to the DRAM (Page 2, paragraph 0026, Page 3, paragraph 0031). Bhatt discloses updating the data in the HD and DRAM every day or after the daily download and the data is updated in both HD and then matched with the algorithm for the DRAM for updating the DRAM so the data used by the application for EPG is rapidly accessed, (Pages 2-3, paragraphs 0021, 0029-0031) and that data is removed from HD to DRAM so that desired data has rapid access (Page 2, paragraph 0022) and data is removed from DRAM if it is data that does not need rapid access (Page 2, paragraph 0022), which meets the limitation that the data is removed from the HD and DRAM so as to ensure data used by application can be accessed from the physical memory without delay.

Regarding Claims 6, 21, 31/21, Bhatt, Trovato and Chaney disclose all the limitations of Claims 1, 16, 31/16. Bhatt discloses that the processor runs the application with the preferred programming information stored in the physical memory (Pages 2-3, paragraphs 0029-0030) and that the preferred programming information is only needed to run the application without having to access the data stored in the HDD (Pages 2-3, paragraphs 0029-0030).

Regarding Claims 7, 22, 31/22, Bhatt, Trovato and Chaney disclose all the limitations of Claims 1, 16, 31/16. Bhatt discloses that the processor controls the storage and manipulation of the data (Pages 2-3, paragraphs 0022, 0026, 0028-0030) and the storage of the data so that the size of the DRAM is configured on up to 14 days of programming information or the most preferred programming data when displaying the EPG or so that the size of the physical memory is configured based on a temporal window of common usage scenarios employing the data (Pages 2-3, paragraphs 0029-0032).

Regarding Claims 10, 25, 31/25, Bhatt, Trovato and Chaney disclose all the limitations of Claims 1, 16, 31/16. Bhatt disclose the physical memory comprises a RAM or DRAM (Figure 1, 186).

Regarding Claims 11, 26, 31/26, Bhatt, Trovato and Chaney disclose all the limitations of Claims 1, 16, 31/16. Bhatt discloses that the mass storage device comprises a hard disk or hard drive (Figure 1, 174).

Regarding Claim 13, Bhatt, Trovato, and Chaney disclose all the limitations of Claim 1. Bhatt discloses a service provider transmitting program guide data (Figure 1,

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Page 2, paragraph 0021). Bhatt discloses a communications channel including satellite (Figure 1, Page 2, paragraphs 0021, 0028). Chaney discloses communication channel is configured one of a satellite communications channel (Figure 1).

5. Claims 14-15, 24, 27-30, 31/24, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt in view of Trovato and Chaney as applied to Claims 1, 16, 31/16 further in view of Hofmann (US 5,883,677).

Regarding Claims 14, 29, 31/29, Bhatt, Trovato, Chaney and Hofmann disclose all the limitations of Claims 1, 24, 31/24. Hofmann discloses that the program guide is configured to display the EPG data on a display unit coupled the broadcast receiving unit in tabular form including program time, channels, and program identification (Figure 4B, 426, Figure 2, 212, Figure 9A). Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include the program guide is configured to display the EPG data on a display unit coupled the broadcast receiving unit in tabular form including program time, channels, and program identification (Figure 4B, 426, Figure 2, 212, Figure 9A) as taught by Hofmann in order to make it more convenient to a user who has multiple services (Column 2, lines 16-22) and to be able receive, organize and display information for services from multiple sources (Column 1, lines 10-14) as disclosed by Hofmann.

Regarding Claims 15, 30, 31/30, Bhatt, Trovato, Chaney and Hofmann disclose all the limitations of Claims 14, 29, 31/29. Trovato discloses program identifications

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include ratings (Column 9, lines 18-20). Hofmann discloses that program identifications or attributes include information about cost for pay per view (Figure 9A).

Regarding Claims 24 and 31/24, Bhatt, Trovato and Chaney disclose all the limitations of Claims 16 and 31/16 respectively. Bhatt discloses a service providing transmitting program guide data (Figure 1, Page 2, paragraph 0021). Bhatt, Trovato and Chaney are silent on the EPG for a plurality of sources. Hofmann discloses a system where EPG data is stored in one mass storage device or buffers (Figure 4B, 420) that receives program information from multiple sources or an EPG for a plurality of sources (Figure 4B, Column 3, lines 20-41) and that the integrated or preferred data to be displayed is transferred to a merged database (Figure 4B, 424). Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination to include that the EPG is for a plurality of sources (Figure 4B, Column 3, lines 20-41) as taught by Hofmann in order to make it more convenient to a user who has multiple services (Column 2, lines 16-22) and to be able receive, organize and display information for services from multiple sources (Column 1, lines 10-14) as disclosed by Hofmann.

Regarding Claims 27 and 31/27, Bhatt, Trovato, Chaney and Hofmann disclose all the limitations of Claims 24 and 31/24 respectively. Bhatt discloses a communications channel (Figure 1, Page 2, paragraph 0021). Hoffman discloses that there is communications channel configured to transmit the EPG data to the set top box (Figure 4B, 310, 318, 314).

Regarding Claims 28 and 31/28, Bhatt, Trovato, Chaney and Hofmann disclose all the limitations of Claims 1, 27, 31/27. Bhatt discloses a service provider transmitting program guide data (Figure 1, Page 2, paragraph 0021). Bhatt discloses a communications channel including satellite (Figure 1, Page 2, paragraphs 0021, 0028). Chaney discloses communication channel is configured one of a satellite communications channel (Figure 1). Hoffman discloses that the communications channel is satellite communications (Figure 4B, 318), a cable communications channel (Figure 4B, 310).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARZANA HOSSAIN whose telephone number is

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(571)272-5943. The examiner can normally be reached on Monday-Friday 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Kelley/
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FEH
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